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INDIAN LAC RESEARCH INSTITUTE,  
NAMKUM, RANCHI, BIHAR,  
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R. S. GOKULPURE

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## 21. CONTRIBUTION TO THE STUDY OF AQUATIC BEETLES —14. *COPELATUS NEELUMAE* SP. NOV. (DYTISCIDAE) FROM INDIA

(With a text-figure)

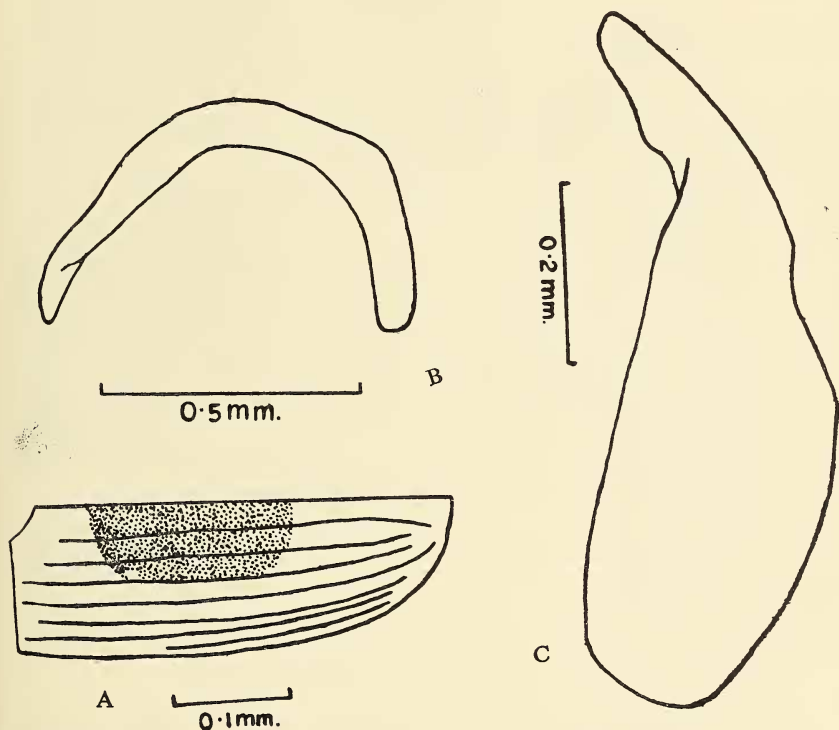
### *Copelatus neelumae* sp. nov.

*Holotype*—♂, Tamilnadu: Ottokovil, Tiruchirapally District, from a tank near Uppada river, 13.iii.1971, K. V. Lakshminarayana coll. In the National Collections, Zoological Survey of India, Calcutta.  
Z.S.I. Regd. No.  $\frac{6052}{H4A}$ .

Length 5.4 mm. Breadth 2.8 mm.

*Head* rufo-ferruginous, slightly paler anteriorly; punctation on the disc quite dense, separated by its own diameter, irregular, more sparse anteriorly and towards the sides; surface distinctly microreticulate.

*Pronotum* rufo-ferruginous with sides slightly paler ; anterior row of punctures quite regular ; punctation of surface finer and less dense than on the head, on the disc separated by 2-3 times its own diameter ; surface micro-reticulate as on the head.



TEXT-FIGURE. *Copelatus neelumae* sp. nov., A—left elytron ; B—lateral view of penis ; C—protibiae in male. All from holotype specimen.

*Elytra* (Text-fig. A) pale testaceous with irregular rufo-ferruginous spots between the suture and third striae, but neither touching the base nor the apical one-third of the elytra. Elytral striae disposed as under.—Striae 1, 2 and 5 abridged at base (1 more than the other two), while striae 3, 4 and 6 commence from the base ; striae 1 more abridged at base than striae 2 and striae 2 less abridged at base than striae 5 ; sub-marginal striae extending a little beyond the middle anteriorly and terminating almost near the apex of striae 6. Striae 6 shorter than 5 at apex, striae 5 shorter than 4 at apex, striae 4 and 1 terminate beyond apex of 3 and 2, nearly enclosing both of them. Punctuation and reticulation as on pronotum but less impressed.

*Ventral side* pale testaceous ; metacoxae and 3 visible abdominal sternites with short, oblique, profound striae, those on the abdominal

sternites a little longer than on metacoxae. Male protibiae (Text-fig. C) enlarged towards apex, distinctly curved and notched at base; basal three segments of protarsi and mesotarsi moderately enlarged; penis (Text-fig. B) slender, curved, asymmetrical from dorsal surface (rather twisted).

*Female*—unknown.

*Remarks*: This species belongs to the *irinus* group, Guignot (1961) and comes close to *C. bangalorensis* Vazirani, *C. indicus* Sharp and *C. freudei* Guignot; in coloration and elytral markings. It differs from all the above species in having elytral striae 1, 2 and 5 abridged at base as against elytral striae 1 abridged at base. In the shape of penis, which is without a dorsal lobe, it comes close to *C. indicus* and *C. freudei*, while in size it is larger than both of them. The specimen under report is freshly emerged, therefore the coloration described above is to be viewed accordingly. In mature specimens the coloration will be darker, but the basic pattern of markings will remain the same. The penis had protruded and had separated and was glued to the card along with the specimen. Vazirani (1970) has given key to the species known from India and has figured the genitalia of the other species mentioned above.

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T. G. VAZIRANI

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tions to the study of Aquatic Beetles (Coleoptera). VII. A. revision of Indian Colymbetinae (Dytiscidae). *Oriental Ins.* 4: 303-362.

#### 22. *QUISQUALIS INDICA* LINN. AND *DODONEA VISCOSA* LINN. AS NEW HOSTS OF CASTOR SEMILOOPER, *ACHOEAE JANATA* LINN.

Castor semilooper, *Achoea janata* L. (Lepidoptera, Noctuidae) is a serious pest of Castor (*Ricinus communis*), guava fruits (*Psidium guajava*) (Srivastava 1960) and citrus fruits (Ayyar 1940 and Rakshpal 1945) in orchards, Pruthi & Mani (1945) reported rose (*Rosa indica*), pomegranate (*Punica granatum*) and *Euphorbia pilulifera* as the alternate hosts while Khan (1946) further included 'Kachnar' (*Bauhinia variegata*), 'Ber'